

Impact of Corporate Scams on share prices: A study of Indian Stock market

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Abstract-This paper studied the impact of the corporate scams on the share prices of the companies. In the pre-fraud period, the typical fraudulent firm has a higher valuation, invests more and exhibits higher sensitivity of investment than industry peers. The fraud period, by contrast, is characterized by sign cant drops in valuation and investment. Corporate scandals around the world in recent years especially Satyam scandal in India created a need contributed to produce quantitative measures on ownership and to estimate their impact on the value and decision-making process of companies. The study of 8 companies has been made which has undergone the scam in the past 8 years & their impact on Indian Stock Market. Event study has been used to examine the impact of corporate scams on stock returns. The AABRs and CAARRs of overall sample are insignificant at 5% level of significance. The study concluded that the market is very efficient they absorb all the information regarding the event.

Keywords-Abnormal Return, AAR, CAAR etc.

1. INTRODUCTION

A false representation of a matter of fact—whether by words or by conduct, by false or misleading allegations, or by concealment of what should have been disclosed—that deceives and is intended to deceive another so that the individual will act upon it to her or his legal injury.

In the broadest sense, a **fraud** is an intentional deception made for personal gain or to damage another individual. Many fraudulent accounting practices came about over the past decade when energy, telecommunication, and other industries were expanding rapidly, and competition was especially fierce. The Stock Market indices were reaching all-time records, and investors were looking for short-term earnings targets. Many corporate executives did whatever was necessary to meet the quarterly expectations of the analysts on Wall Street, thereby increasing the price of their stock. This often allowed their companies to borrow more money to grow and compete. Since most top executives also enjoyed stock options that rose in value with their companies' stock prices, they had the added incentive of making significant profits by selling their stocks at the higher prices. This resulted in a considerable transfer of money from individual shareholders to corporate managers. However, the individual investors were still making profits and therefore not paying attention to conflicts of interest and fraudulent practices, thus allowing the executives to go almost unchecked in their actions.

Corporate Fraud is the fraud committed by an organization rather than an individual. It generally arises out of auditing malpractices of the organization. Auditing practices came

into limelight when world witnessed the collapse of Enron & WorldCom in 2001 & 2002. Both companies has overstated its profits. India has also been witnessing similar corporate scenario in the past. A recent report by KPMG highlights that 75 per cent of corporate India surveyed felt the overall incidence of fraud has been rising. The report also pointed out that e-commerce and computer-related frauds would be major concerns to companies in the coming years.

2. CAUSES OF IPO SCAM

- Two of the most common factors of the major IPO scams in India were the tacit consent of the banks and the poor surveillance techniques.
- The Depository Participants must be provided the proof of identity and proof of address as a routine check for the opening demat accounts. This was not followed.
- Numerous dematerialized accounts and bank accounts had been opened under false names and the IPO applications were made in non existing names.

3. IPO SCAMS - HOW IT IS DONE

- At first bank accounts were opened up in fictitious or "benami" names, which allowed these fictitious account holders to open demat accounts.
- The master account holders, the person who had executed the planning acts as an intermediary on behalf of the financiers.

- The shares acquired at the IPOs were disposed on the date of listing at a premium to get more than the amount of money invested.
- The banks played an important part by means of opening bank accounts and giving loans to the fictitious entities for the purpose of earning fee incomes.

4. MAJOR SCAMS IN INDIA

- Suzlon Energy Ltd's Rs 1,496.34 crore (Rs 14.963 billion) public issue (September 23-29, 2005). The retail portion was oversubscribed 6.04 times and the non-institutional portion was oversubscribed 40.27 times. Key operators used 21,692 fictitious accounts to corner 323,023 shares representing 3.74 per cent of the total number of shares allotted to retail individual investors.
- Jet Airways's Rs 1,899.3 crore (Rs 18.993 billion) public offer (Feb 18-24, 2005). The retail portion was subscribed 2.99 times and the non-institutional portion by 12.5 times. Key operators used 1186 fake accounts for cornering 20,901 shares representing 0.52 per cent of the total number of shares allotted to retail investors.
- National Thermal Power Corporation Ltd's Rs 5,368.14 crore (Rs 53.681 billion) IPO (Oct 7-14, 2004). The retail portion was oversubscribed 3.73 times and the non-institutional portion by 11.93 times. Key operators used a total of 12,853 afferent accounts for cornering 2,750,730 shares representing 1.3 per cent of the total number of shares allotted to retail investors.
- Tata Consultancy Service's Rs 4,713.47 crore (Rs 47.134 billion) public offer (Aug 19-23, 2004). The retail portion was oversubscribed 2.86 times and the non-institutional portion by 19.15 times. Key operators used 14,619 'benami' accounts to corner 261,294 shares representing 2.09 per cent of the total shares allotted to retail individual investors.
- THE capital market regulator, SEBI, has unearthed a large-scale multiple application case in the recent YES Bank IPO and banned 13 investors from trading in the bank's shares with immediate effect. These investors have manipulated allotment of shares by opening more than 7,500 'benami' depository accounts. They gained Rs 1.7 crore by this manipulation on the first trading day of the IPO.
- Former UTI chairman P S Subramanyam and two executive directors - M M Kapur and S K Basu - and a stockbroker Rakesh G Mehta, were arrested in connection with the 'UTI scam'. UTI had purchased 40,000 shares of Cyberspace between

September 25, 2000, and September 25, 2000 for about Rs 3.33 crore (Rs 33.3 million) from Rakesh Mehta when there were no buyers for the scrip. The market price was around Rs 830. The CBI said it was the conspiracy of these four people which resulted in the loss of Rs 32 crore (Rs 320 million). Subramanyam, Kapur and Basu had changed their stance on an investment advice of the equities research cell of UTI. The promoter of Cyberspace Infosys, Arvind Johari was arrested in connection with the case. The officials were paid Rs 50 lakh (Rs 5 million) by Cyberspace to promote its shares. He also received Rs 1.18 crore (Rs 11.8 million) from the company through a circuitous route for possible rigging the Cyberspace counter.

- The biggest corporate scam in India comes from one of the most respected businessmen. Satyam founder Ramalinga Raju resigned as its chairman after admitting to cooking up the account books. His efforts to fill the "fictitious assets with real ones" through Maytas acquisition failed, after which he decided to confess the crime. With a fraud involving about Rs 8,000 crore (Rs 80 billion), Satyam is heading for more trouble in the days ahead. On Wednesday, India's fourth largest IT company lost a staggering Rs 10,000 crore (Rs 100 billion) in market capitalisation as investors reacted sharply and dumped shares, pushing down the scrip by 78 per cent to Rs 39.95 on the Bombay Stock Exchange.

5. REVIEW OF LITERATURE

R. Chakrabarti, S. Sarkar (2009): The recent corporate governance scandals at the fourth largest software firm in India, Satyam Computers Limited, provide two clean and major corporate governance events, with effects on firms across the board in India (and possibly other emerging market countries). We analyze the cross-sectional variation in the stock price reactions to these two corporate governance shocks for Indian companies. We relate the firm-specific abnormal returns on these two dates to different measures of corporate governance to find out the market perception of the validity of these measures. We show that with regard to board effectiveness, i) Board independence per se does not matter; but ii) The characteristics of the independent directors matter: companies with more independent directors do better and those with more entrenched board (proxied by mean tenure of independent directors) fare worse; iii) institutional holdings have a salutary effect, but only for foreign institutions; iv) board size had a quadratic relationship with board effectiveness and v) perhaps surprisingly; there is no evidence of a discount for company belonging to business groups. These findings help us identify what

variables among those identified by prior research are actually taken into account by investors in an emerging market to assess the corporate governance levels of companies and to what extent they affect valuation.

Fathimathabasum(2009) had analyzed that the security scams and financial scandals have lead to the manipulation of large amount of money, bloating stock markets and sensenx. Even the financial markets having regulatory authority and empowered legal sections have failed in providing good corporate governance. Due to that many investors lose their confidence on corporate governance and lose their faith on the investors and the companies and banks as well as in CRB case people lost their fixed deposits and mutual funds also and incurred losses. People like Harshad Mehta use so many mediums such as website and writing columns in several newspapers giving tips on stocks. The result was the people trust them and do accordingly this result to the loss only. Market bullers also plays a great role in that due to their forces ,the prices of the selective shares constantly increased due to rigging .The investors who bought the share at higher prices thought that the market prices were genuine. On the whole it is a game of few people who do and then the investors suffers a lot as it is necessary to pass certain rules and follow the corporate governance strictly.

Padmavathi C, Sunitha T, Sunitha S, (2008) Hadanalyzed that forensic accounting was the application of specialized knowledge and specific skills to stumble upon the evidence of economic transactions. The ever-increasing corrupt business practices, corporate frauds, the much talked about financial statement frauds at Enron and WorldCom and other crimes had brought ‘forensic accounting’ to limelight. Rapid advances in technology sector transformed the nature of frauds. Countering sector-specific frauds require an overarching strategy distinctive to certain sectors. It has been recognized across all sectors that internal control reviews help prevent frauds. Specific internal control procedures designed with focus on frauds and managements’ stance in combating frauds partly solve the problem. A forensic accountant’s investigative services extend to cover a wide spectrum – from accounting violations, exposing tax evasions, financial misappropriations, employee fraud investigations, undertaking criminal investigations, resolving partnership disputes, marital dissolutions, bankruptcy, investigation into breach of fiduciary duty, capital market frauds, undertaking business valuations, investigation of family disputes, wrongful termination and countering terrorism. In, the second study in a series of volumes on Forensic Accounting and Financial Frauds, attempts to present a comprehensive literature on some specific white-collar thefts pertaining to specific sectors

ChoudhariArun (2006) had analysed that corporate world has experienced several disasters. In most of the cases, large companies were found tainted by scams (Enron,

WorldCom, Parmalat, and Vivendi to name a few). As a result of these scams, corporate governance emerged as a burning issue in corporate circles. A number of committees were formed in different parts of the globe and most of these committees stressed the need of internal control in all domains of finance. Risk-based Internal Audit, a revolutionary new concept in the realm of traditional audit, gained wider acceptance. This article outlines the need for Risk-based Internal Audit to provide an evolutionary sketch of this method in the backdrop of corporate governance.

After studying the review of literature the need of the studyisto know as to the effects on the share price of the company who has undergone the Corporate Fraud. The scope of the study would be limited to a certain set of companies and the data of which would be collected from the website of NSE & BSE. The study mainly focuses only on those companies have been under the Corporate Fraud.An attempt has been made to study the impact of Financial scams on the share price of the company.

6. RESEARCH METHODOLOGY

The research design used for this study is of empirical in nature which includes both descriptive and exploratory.Now the study is empirical in nature because the data is derived by means of direct observation or experiment, and it will be used in the research to answer a question or test a hypothesis. It has been designed in this study to determine the direction and the magnitude of the effect of the particular information on the stock prices.Convenience sampling technique is chosen for this research work because of the availability of the data. The sample size for the research is 8 companies which have undergone financial scam in the Indian stock market in the past 8 years (2001-2009).The secondary data has been collected from various websites such as NSE, books, journals, newspapers & magazines etc. The date of financial scam has been collected from NSE.

HYPOTHESIS: The main objective is to investigate the validity of effect of scam on the share price of the company. This leads to the hypothesis:

H₀₍₁₎: There is no positive signalling in Share price behaviour around the financial scams.

As the market is assumed to be efficient, the expectation is that stock prices should reflect the level of share price of the company, given that an abnormal return is evident upon the announcement.

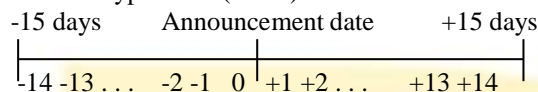
This leads to the second hypothesis.

H₁₍₁₎: Stock is positive signalling in Share price behaviour around the financial scams.

TOOLS FOR ANALYSIS: To fulfill our objectives of the study, Event study has been used.

Event Study: Event study has been used because of its relative ease of use and the wide accessibility of stock

price data. Also in order to test the market efficiency, as an efficient market will adjust prices immediately to new information. And it is widely regarded that event study provide the best evidence for Efficient Market Hypothesis (EMH).



Average return (AR): it is calculated on the basis of High & low prices according to company and stock exchange

$$H+L/2$$

H = High price & L = low price of all days.

Average daily return (ADR): it is calculated on average return of both company & BSE.

Current day return – previous day return/previous day return.

$$ADR = DR - (DR-1)/DR-1 \quad (DR = \text{Current day return})$$

Expected return (EXR): The return expected on a risky asset based on a probability distribution for the possible rates of return. To calculate it, first it have to calculate Beta & intercept.

Beta showed the level of risk & premium in stock.

Intercept showed the level of average income of investor in securities.

Intercept + (beta* Average daily return)

Abnormal Return: To perform the analysis, first, the equilibrium model for the 'normal' stock return, i.e. the expected return if the event did not happen must be specified. Second the 'event date' and the 'event window' is specified. Even estimation window is examined, in order to ensure that the event does not influence the parameter estimates of the normal return.

Event window: 15 days before the announcement and 15 days after the announcement.

Estimation window: 200 days prior to the post 15 days before the announcement.

In order to conduct the analysis first, the equilibrium model for the 'normal' stock return, i.e. the expected return if the event did not happen must be specified. Second the 'event date' and the 'event window' is specified. So the study includes an estimation window of 200 days. The normal model used is the market model expressed as:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + E_{i,t}$$

$R_{i,t}$ is the return on security i on t

$R_{m,t}$ is the return on market index m on day t

α_i is the market model constant

β_i is the parameter that measures the sensitivity of the security in market

$E_{i,t}$ is the random error

$$AR_{i,t} = R_{i,t} - \alpha_i - \beta_i R_{m,t}$$

Average Abnormal Return (AABR): The average abnormal return, AABR for the event day (t) for a sample (n) securities is calculated as shown under in order to eliminate the effect of any one group of securities on abnormal return.

Event window: The event window of last 215 days from the announcement of scam and next 15 days from announcement has been taken.

AR t = (1/N) AR it for t (-15.....+15)

Cumulative Average Abnormal Return (CAAR): The cumulative Average Abnormal Return (CAAR) was subsequently calculated for the event days though in order to determine the cumulative effect of AAR's on the days surrounding the event.

$$AAR(t_1, t_2) = \sum AAR$$

When AAR is calculated on the given event day the positive and negative price activities in reaction to unexpected earnings performance would cancel out each other and as such the overall sample was subdivided on the basis of Yes and No significance level. As we are applying Z-TEST at the freedom level of 5.5 so if the Z value lies between -1.96 to +1.96 then the event is said to have a significant reaction otherwise No. So in order to arrive at Z values the following step have been followed.

- An abnormal return of the companies has been calculated.
- Cumulative abnormal return (CAR) has been calculated.

Cumulative Abnormal Return (CAR): it is calculated on the basis of abnormal return. For example first day CAR will be same as AR of particular day. And next day of CAR will be sum of AR of particular day + CAR of previous day.

$$E$$

$$CAR = \sum_{t=T} AR_t$$

- Average abnormal return of the company has been calculated.

Average abnormal return (AARs): it is calculated on the basis of all company's abnormal return of a particular date.

AARs: ABR (2) + ABR (2) ABR (3)/3

- Cumulative average abnormal return has been calculated.

Cumulative Average Abnormal Return (CAARs): it is calculated on the basis of all company's CAR of particular sector.

CAARs: CAR (2) + CAR (2) + CAR (3)/3

- Degree of freedom has been calculated by following formula. $\sqrt{n-1}$

Where n represents event window.

- Now this degree of freedom is multiplied with AABR to get the Z value.

The null hypothesis H_0 that the event news impact on share prices is to be tested if the Z value lies in between -1.96 to +1.96 the event had a significant impact on share prices. Then the null hypothesis is rejected if, the value lies beyond -1.96 to +1.96 then the null hypothesis is accepted and announcement did not have any impact on the share

prices.

An event study is concerned with impact of firm's specific corporate events such as dividends earnings, take over's and insider trading, corporate scams. The key assumptions of event study methodology are that market must be efficient. Given an efficient market, the effects of the events will be reflected immediately in the stock prices of the companies. This will allow us to observe the economic effect of the event over a related short period.

This procedure has been applied on gone the financial the announcements made by SEBI and the companies undergone the financial event so as to study the impact of these events on the stock prices. The event study methodology has been used to estimate the CAAR in a 31 days window period.

7. EMPIRICAL RESULTS AND FINDINGS

The AABR and CAAR and the corresponding Z values each of the 31 days of the event window among the companies who have undergone the financial scam in the past 5 years. On the day of the company had undergone the scam, the AABR is 3.555031 with z value of 19.55267 and CAAR is 11.52477 with z value of 63.38623 both of which are significant at 5% level of significance.

The table shows that AABRs and CAARs respectively of the company undergone financial scam during last six years (2004-2009). On the date of announcement, the AABR attains value of 3.555031 however the AABR fluctuates randomly prior to and post announcement period and no inference can be made that whether abnormal returns were possible or not during EVENT. As per the z value of CAARs abnormal returns were not possible. So it can be concluded that there was scope of abnormal returns on daily basis but on a cumulative basis the market was efficient.

8. CONCLUSION

The major finding is that there is no impact of the financial scams on the share prices of the company. This study examine the impact of financial scams on the share price of the company who has undergone the scam, for this the study of 8 companies was made who has undergone the scam in the past 6 years. The study adopted event study methodology to examine the impact of financial scams and announcements by SEBI on stock returns and INDEX. The AABRs and CAARRs of overall sample are insignificant at 5% level of significance. The study evaluates that the market is very efficient they absorb all the information regarding the event. The analysis shows that there is no impact on the value of the share price of the company and on the value of the index in regard to the financial scams and announcements. The questionnaire shows that most of the investor are aware of the financial scams but they do not think that these scams effect their investments a great deal.

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ANNEXURE

TABLE-.1.1 SIGNIFICANCE TEST FOR AABR AND CAARR FOR FULL SAMPLE

Event Window	AABR	z value		CAAR	z value	
-15	0.841086	4.625972	No	0.841086	4.625972	No
-14	-0.18041	-0.99224	Yes	0.660679	3.633734	No
-13	-1.67566	-9.21613	No	-1.01498	-5.5824	No
-12	-0.63952	-3.51736	No	-1.6545	-9.09977	No
-11	-0.07925	-0.43586	Yes	-1.73375	-9.53563	No
-10	0.473298	2.60314	No	-1.26045	-6.93249	No
-9	-1.12899	-6.20946	No	-2.38944	-13.1419	No
-8	-1.41839	-7.80112	No	-3.80783	-20.9431	No
-7	-0.28975	-1.59364	Yes	-4.09758	-22.5367	No
-6	-0.33361	-1.83485	Yes	-4.43119	-24.3716	No
-5	4.732674	26.02971	No	0.301482	1.65815	Yes
-4	9.69055	53.29802	No	9.992032	54.95617	No
-3	-1.4822	-8.15211	No	8.50983	46.80407	No
-2	-0.195	-1.07253	Yes	8.314825	45.73154	No
-1	-0.34509	-1.89797	Yes	7.969739	43.83357	No
0	3.555031	19.55267	No	11.52477	63.38623	No
1	0.345972	1.902847	Yes	11.87074	65.28908	No
2	-2.208	-12.144	No	9.662744	53.14509	No
3	-1.21287	-6.67078	No	8.449874	46.47431	No
4	-0.07651	-0.42079	Yes	8.373367	46.05352	No
5	-1.94134	-10.6774	No	6.432025	35.37614	No
6	-3.44579	-18.9519	No	2.986232	16.42428	No
7	-3.61258	-19.8692	No	-0.62635	-3.44491	No
8	-1.03641	-5.70027	No	-1.66276	-9.14518	No
9	-1.27447	-7.00958	No	-2.93723	-16.1548	No
10	1.19465	6.570577	No	-1.74258	-9.58419	No
11	0.869905	4.784477	No	-0.87268	-4.79971	No
12	-0.17396	-0.95678	Yes	-1.04663	-5.75649	No
13	-0.32224	-1.77235	Yes	-1.36888	-7.52884	No
14	0.332412	1.828266	Yes	-1.03647	-5.70057	No
15	1.467431	8.070868	No	0.430963	2.370298	No

Graph 1.1AABR - Average Abnormal Return on financial scams